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ABSTRACT

This invention employs a scheme to allow an input video signal to undergo encoding, e.g., predictive encoding, DCT processing, quantization at fixed quantization step size and variable length encoding to generate first encoded data to determine (calculate) allocated code quantity every frame or every GOP on the basis of data quantity every predetermined time, e.g., every frame or every GOP of the first encoded data and total quantity of usable data to encode the input video signal every predetermined time on the basis of the allocated code quantity to generate second encoded data. Thus, variable rate encoding such that encoding rate changes every predetermined time is realized. As a result, even if pictures (frames) of complicated are successive, there is no possibility that quantization step size is caused to be large with respect to these pictures as in the conventional apparatus. Thus, uniform high picture quality can be obtained through the entirety. Further, since second encoded data obtained in a manner as described above has variable rate, in the case where such encoded data is recorded onto picture recording media, limited memory capacity can be effectively used, and recording time of picture recording media can be prolonged. In addition, picture data of high picture quality uniform over the entirety can be reproduced from the picture recording media.